

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

13. – 27. (cancelled)

28. (previously presented) An apparatus comprising:

a pressure sensor arranged and constructed to detect pressure fluctuations inside an air intake conduit that is in communication with an engine of a vehicle,

an amplifier in communication with the pressure sensor and being arranged and constructed to generate signals representative of engine sounds based upon said pressure fluctuations detected by the pressure sensor, and

at least one speaker disposed so as to make said engine sounds audible inside a cabin of the vehicle, said at least one speaker being arranged and constructed to receive said signals generated by the amplifier.

29. (previously presented) An apparatus as in claim 28, wherein the pressure sensor comprises a piezoelectric element.

30. (previously presented) An apparatus as in claim 29, wherein the pressure sensor has a frequency range of about 1-10 Hz.

31. (previously presented) An apparatus as in claim 30, further comprising:
a filter disposed between the pressure sensor and the amplifier, and
a modulator arranged and constructed to adjust the frequency range of the filter.

32. (previously presented) An apparatus as in claim 31, wherein the modulator is

also arranged and constructed to adjust the amplification factor of the amplifier.

33. (New) An apparatus as in claim 28, wherein the pressure sensor is connected to an inner wall of an intake manifold and is disposed upstream of a throttle valve.

34. (New) An apparatus as in claim 33, wherein the pressure sensor is a differential pressure sensor and the pressure sensor has an input window that is mounted adjacent to a hole defined in the intake manifold.

35. (New) A method comprising:

detecting pressure fluctuations inside an air intake conduit, which is in communication with an engine of a vehicle, using a pressure sensor, wherein the pressure sensor generates signals representative of the noise of the engine, and

amplifying said signals and

supplying the amplified signals to at least one speaker disposed inside a cabin of the vehicle, wherein the at least one speaker outputs sounds representative of the engine noise.

36. (New) A method as in claim 35, wherein the amplifying step further comprises frequency-selective filtering said signals generated by the pressure sensor, and modulating said signals based upon operational parameters of the vehicle.

37. (New) A method as in claim 36, further comprising attenuating frequencies above 300 Hz.

38. (New) A method as in claim 35, wherein the pressure fluctuations are detected by the pressure sensor upstream of a throttle valve.

39. (New) A method as in claim 35, wherein the pressure sensor is a differential pressure sensor.

40. (New) A method as in claim 39, wherein the differential pressure sensor is a piezoelectric element.

41. (New) A method as in claim 40, wherein the piezoelectric element has a frequency range of about 1-10 Hz.

42. (New) An apparatus comprising:

 a piezoelectric sensor disposed in an intake manifold in communication with a vehicle engine, wherein if the vehicle engine has a throttle valve, the piezoelectric sensor is disposed upstream of the throttle valve, and wherein the piezoelectric sensor is arranged and constructed to generate signals based upon detected pressure fluctuations, which signals emulate the noise of said vehicle engine,

 an amplification circuit arranged to amplify said engine noise signals and

 at least one speaker arranged and constructed to receive the amplified signals and being disposed so as to make engine sounds audible inside a cabin of the vehicle.

43. (New) An apparatus as in claim 42, further comprising:

 a filter disposed between the pressure sensor and the amplification circuit, and

 a modulator arranged and constructed to adjust the frequency range of the filter and to adjust the amplification gain of the amplification circuit,

 wherein the piezoelectric sensor is a differential sensor having a frequency range of about 1-10 Hz and is connected to an inner wall of the intake manifold.

44. (New) An apparatus as in claim 43, wherein the piezoelectric sensor has

an input window that is mounted adjacent to a hole defined in the intake manifold.

45. (New) A method comprising:

detecting pressure fluctuations inside an air intake manifold, which is in communication with an engine of a vehicle, using a piezoelectric sensor, wherein if the vehicle engine has a throttle valve, the piezoelectric sensor is disposed upstream of the throttle valve, and wherein the piezoelectric sensor generates signals that emulate the noise of the vehicle engine, and

amplifying said engine noise signals and

supplying the amplified signals to at least one speaker disposed inside a cabin of the vehicle, wherein the at least one speaker outputs sounds representative of the engine noise.

46. (New) A method as in claim 45, wherein the amplifying step further comprises:

frequency-selective filtering said engine noise signals and

modulating said engine noise signals based upon operational parameters of the vehicle.

47. (New) A method as in claim 46, wherein the piezoelectric sensor is a differential pressure sensor having a frequency range of about 1-10 Hz.